REMARKS

Claims 1 through 26 are pending in this Application, of which claims 13 through 20 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b). Applicants acknowledge, with appreciation, the Examiner's allowance of claims 6 through 12. Accordingly, the only remaining issues pivot about the patentability of claims 1 through 5 and 21 through 26.

Claim 1 has been amended and new claims 24 through 26 added. Care been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure. For example, as to claim 1 Applicants refer to Fig. 4 and the related discussion thereof in the written description of the specification. As to new claim 24 Applicants refer to the disclosure in the paragraph bridging pages 4 and 5 of the written description of the specification, wherein there is disclosed a plethora of suitable dielectric materials for use as the dielectric layers in accordance with the present invention. The disclosed dielectric materials include both fluorinated and nonfluorinated. It is Applicants' judicially established prerogative to restrict an originally disclosed invention as by excluding fluorinated dielectric materials. See, for example, *In re Johnson, 558 F.2d 1008, 194 USPQ 187 (CCPA 1977).* Applicants, therefore, submit that the present Amendment does not generate any new matter issue.

Clarification of Record

Applicants invite the Examiner's attention to claims 21 through 23 which appear to have eluded attention in the Office Action dated August 17, 2004.

Claims 1, 2, 4 and 5 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Chooi et al.

In the statement of the rejection the Examiner referred to Figs. 1 and 4 through 8 of Chooi et al., asserting the disclosure of a method comprising manipulative steps, including forming a first barrier metal layer identified as element 16 and then forming a second barrier layer 15 (Fig. 5). This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of the claimed invention, such that the identically claimed invention is placed is into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc., 329 F.3d 1358 (Fed. Cir. 2003); Crown Operations International Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002).* There is a fundamental difference between the method defined in independent claim 1 and the methodology of Chooi et al. that scotches the factual determination that Chooi et al. disclose a method identically corresponding to that claimed.

Specifically, the method defined in independent claim 1 comprises a sequence of manipulative steps which includes forming a second barrier layer on an **entire** upper surface of the first barrier layer. This manipulative step is not disclosed nor suggested by Chooi et al. Indeed, adverting to Figs. 4 and 5 of Chooi et al., it is **impossible** to form the second identified barrier layer 15 on an **entire** upper surface of the first barrier layer identified as 16 because, as apparent from Figs. 4 and 5, element 18, which is a layer of low-k fluorinated dielectric material, is formed on most of the upper surface of the first barrier layer 16.

The above argued difference in manipulative steps between the claimed method and the method disclosed by Chooi et al. undermines the factual determination that Chooi et al. disclose a

method identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).* Applicants, therefore, submit that the imposed rejection of claims 1, 2, 4 and 5 under 35 U.S.C. § 102 for lack of novelty as evidenced by Chooi et al. is not factually viable and, hence, solicit withdrawal thereof.

Claim 3 was rejected under 35 U.S.C. § 103 for obviousness predicated upon Chooi et al. in view of Chung et al.

In the statement of the rejection the Examiner concluded that that one having ordinary skill in the art would have been motivated to implement the methodology of Chooi et al. by depositing a silicon nitride layer as a first barrier layer and silicon carbide as a second barrier layer by CVD. This rejection is traversed.

Claim 3 depends from independent claim 1. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. § 102 for lack of novelty as evidenced by Chooi et al. The secondary reference to Chung et al. does not cure the argued deficiencies of Chooi et al. Indeed, any proposed modification of the methodology of Chooi et al to arrive at the claimed invention proceeds directly **against** the teachings of Chooi et al. and, hence, cannot be said to have been obvious to one having ordinary skill in the art. *In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992); In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); In re Schulpen, 390 F.2d 1009, 157 USPQ 52 (CCPA 1968).*

Ergo, even if the applied references are combined as suggested by the Examiner, and Applicants do not agree that the requisite fact-based motivation has been established, the claimed

invention would **not** result. *Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).*

Applicants, therefore, submit that the imposed rejection of claim 3 under 35 U.S.C. § 103 for obviousness predicated upon Chooi et al. in view of Chung et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Claims 21 through 23

Claims 21 through 23, which were not treated by the Examiner, depend ultimately from independent claim 1. Accordingly, claims 21 through 23 are free of the applied prior art by virtue of there dependence upon independent claim 1. Moreover, Applicants separately argue the patentability of each of claims 21 through 23 based upon the limitations expressed therein.

New Claims 24 through 26

New claims 24 through 26 are clearly free of the applied prior art. The primary reference to Chooi et al. focuses upon an interconnect system containing **fluorinated** dielectric materials. The entire invention is based upon preventing fluorine out-diffusion from surrounding low-k fluorinated dielectric materials. In accordance with the invention defined in independent claim 24, the first dielectric layer overlying a substrate is **non-fluorinated**. Accordingly, the present invention is not encompassed by the teachings of Chooi et al. Moreover, any modification of Chooi et al. to eliminate a fluorinated low-k dielectric material simply undercuts the premise upon which the entire disclosure of Chooi et al. is predicated and, hence, cannot be considered realistically motivated. Accordingly, claims 24 through 26 are clearly free of the applied prior art.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome and that all active claims are in condition for immediate allowance. Favorable consideration is, thereby, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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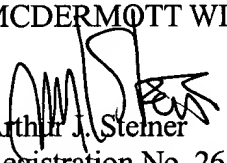

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